Electronic TUBES

18FW6

PENTODE

DESCRIPTION AND RATING

The 18FW6 is a miniature, semi-remote-cutoff pentode designed for RF and IF amplifier service in line-operated radio receivers having 100-milliampere, series-connected heaters.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	18±10%	Volts
Heater Current	0.1	Amperes
Direct Interelectrode Capacitances*		
Grid-Number 1 to Plate: (g1 to p)	0.0035	μμf
Input: G1 to (H+K+G2+G3)	5.5	μμf
Output: P to (H+K+G2+G3)	5.0	μμf

MECHANICAL

Mounting Position—Any
Envelope—T-5½, Glass
Base—E7-1, Miniature Button 7-Pin

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

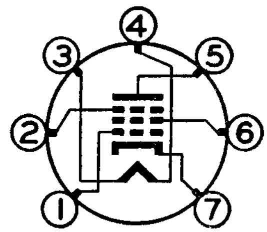
Plate Voltage	150	Volts
Screen-Supply Voltage	150	Volts
Screen Voltage—See Screen Rating Chart		
Plate Dissipation	2.5	Watts
Screen Dissipation	0.6	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	100	Volts
Heater Negative with Respect to Cathode	100	Volts

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

These values are chosen by the tube manufacturer to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, variation in characteristics of all other tubes in the equipment, equipment control adjustment, load variation, signal variation, and environmental conditions.

BASING DIAGRAM

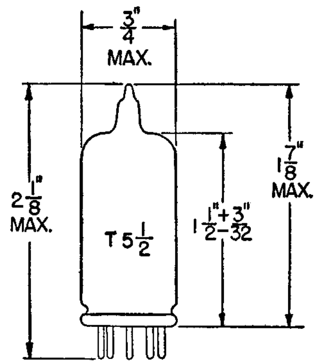


EIA 7CC

TERMINAL CONNECTIONS

Pin 1—Grid Number 1
Pin 2—Grid Number 3 (Suppressor)
Pin 3—Heater
Pin 4—Heater
Pin 5—Plate
Pin 6—Grid Number 2 (Screen)
Pin 7—Cathode

PHYSICAL DIMENSIONS



EIA, 5-2

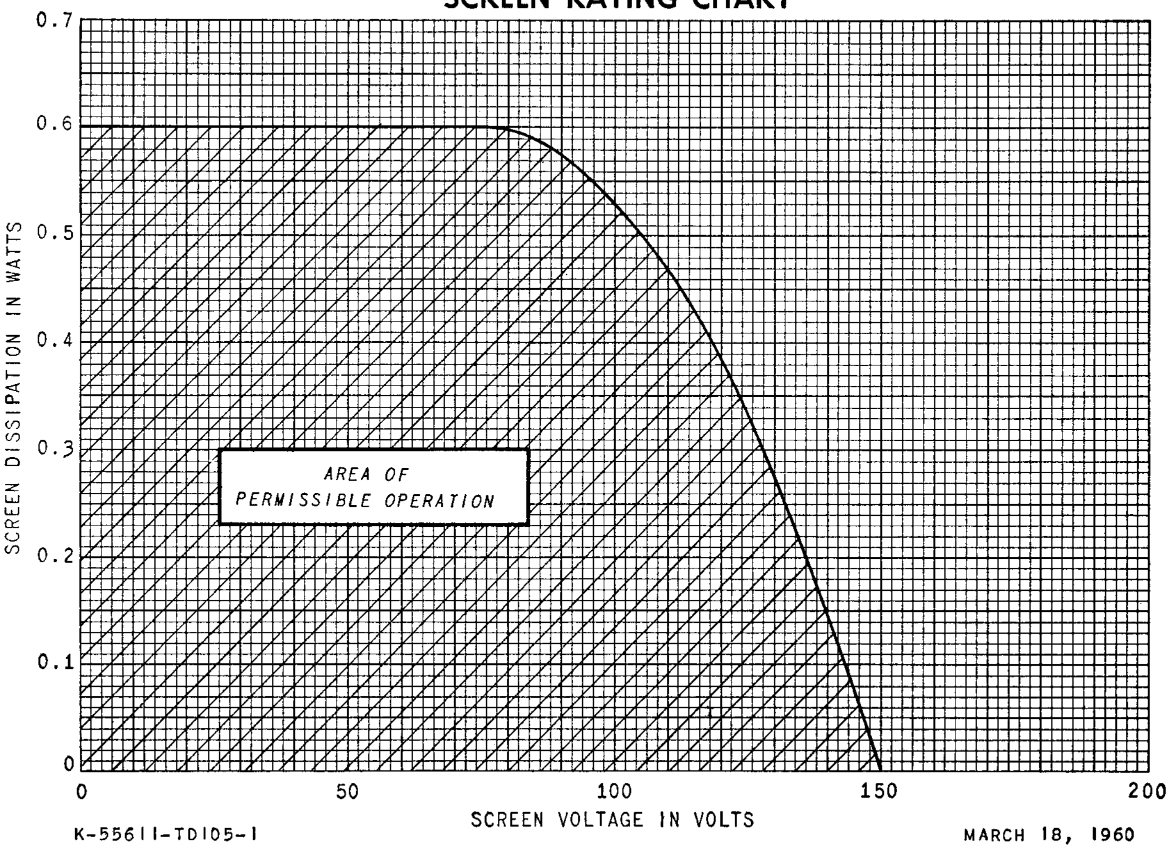
CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

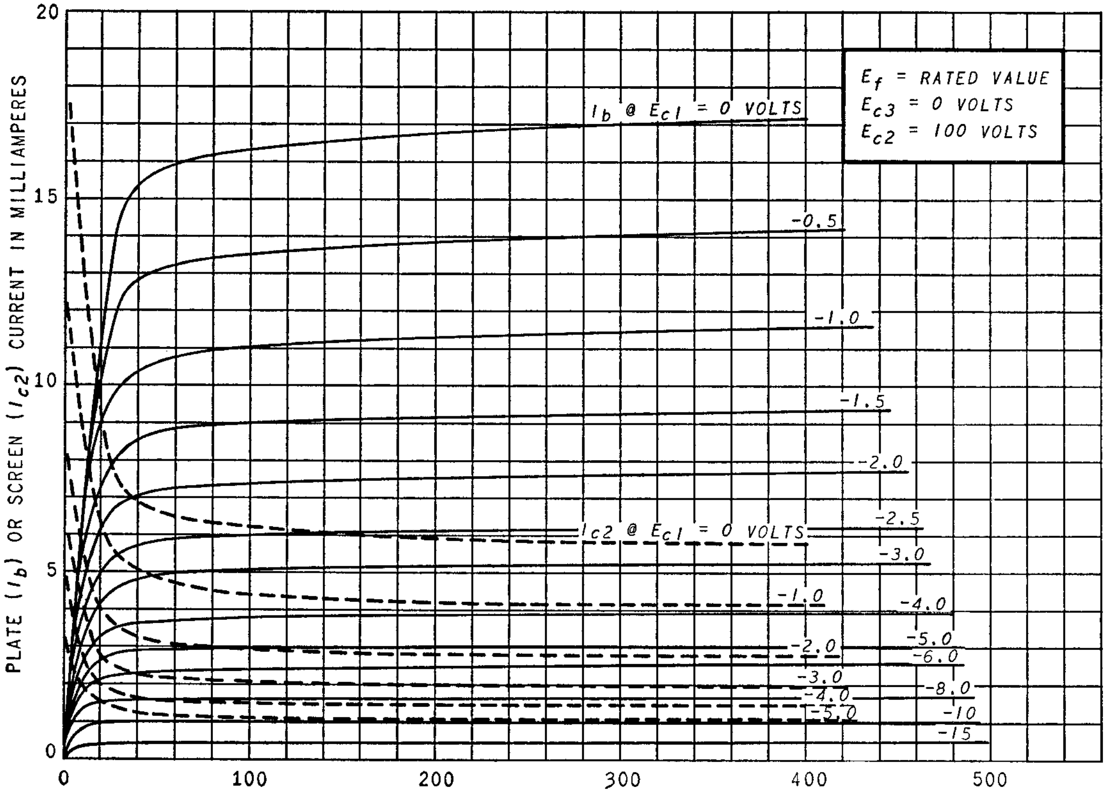
Plate Voltage	100	Volts
Suppressor, Connected to Cathode at socket		
Screen Voltage	100	Volts
Cathode-Bias Resistor	68	Ohms
Plate Resistance, approximate	0.25	Megohms
Transconductance	4100	Micromhos
Plate Current	9.0	Milliamperes
Screen Current	3.9	Milliamperes
Grid-Number 1 Voltage, approximate		
Gm = 25 Micromhos	−20	Volts

* With external shield (EIA 316) connected to cathode.

SCREEN RATING CHART



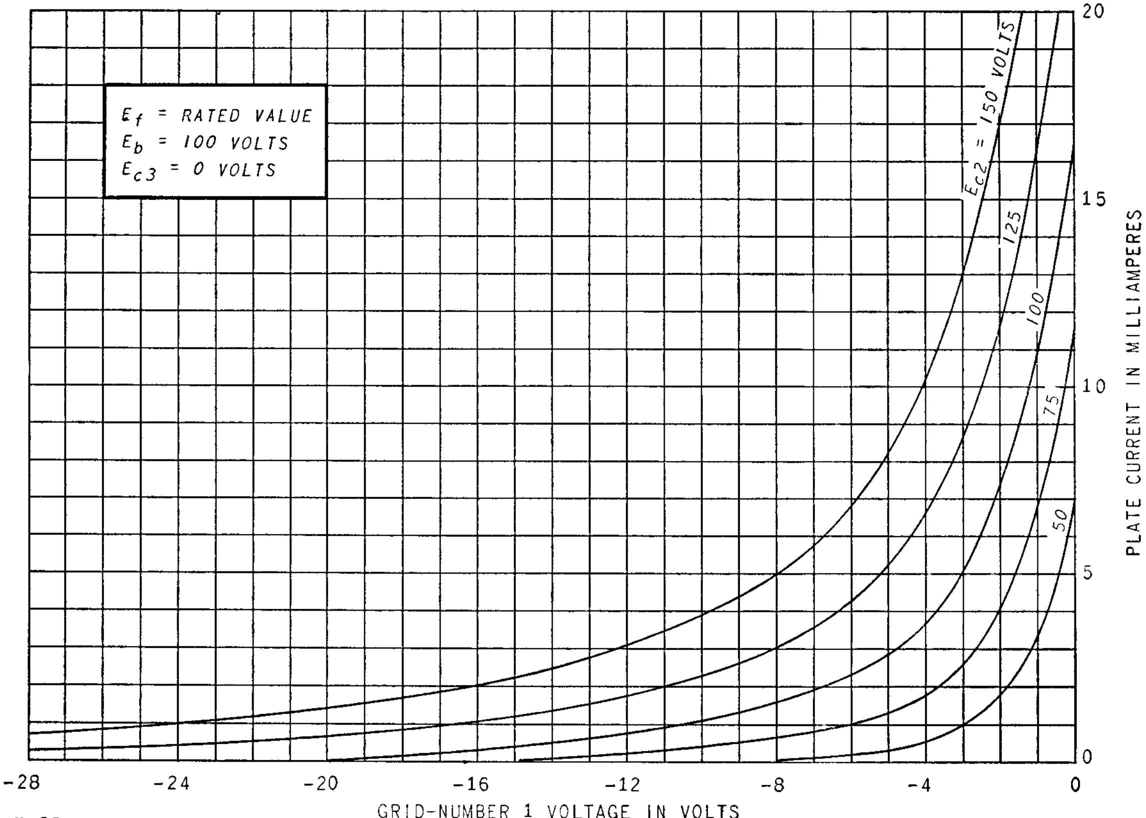
AVERAGE PLATE CHARACTERISTICS



K-55611-TD105-2

MARCH 18, 1960

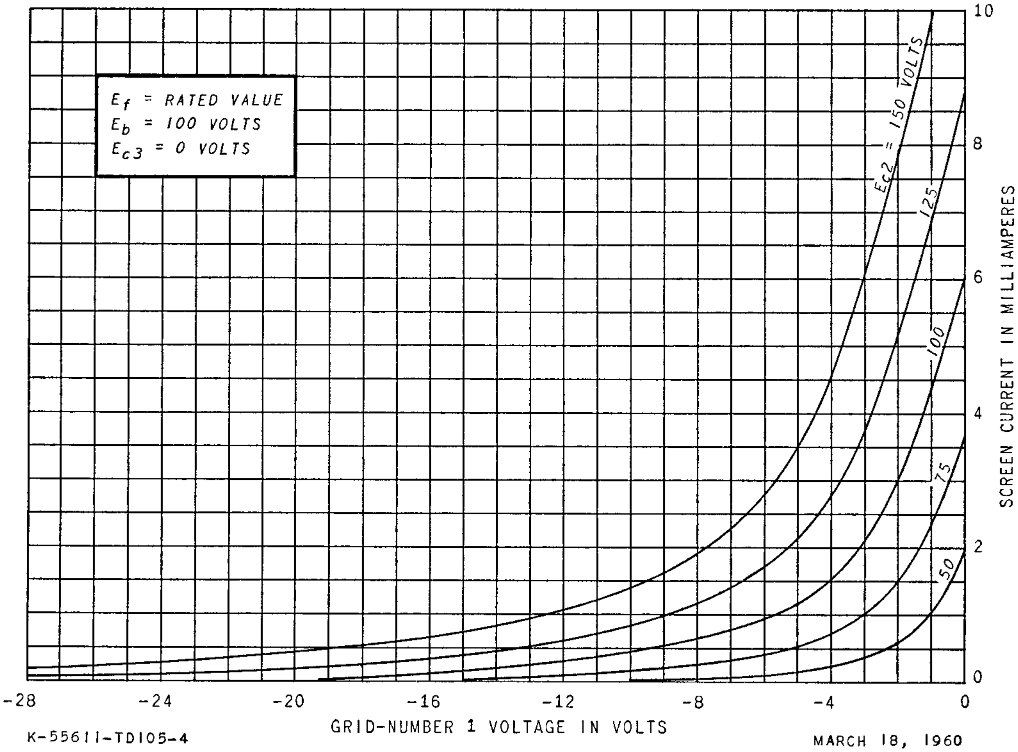
AVERAGE TRANSFER CHARACTERISTICS



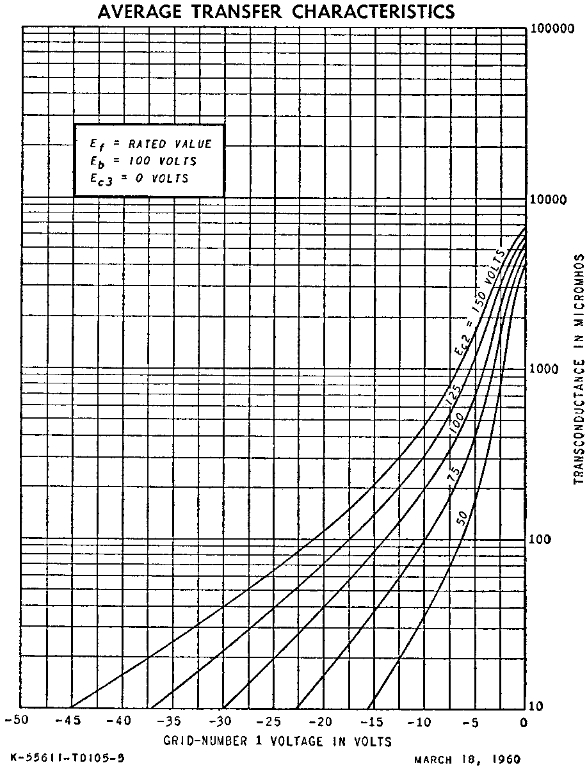
K-55611-TD105-3

MARCH 18, 1960

AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION

GENERAL ELECTRIC

Schenectady 5, N. Y.

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